

THE MAMMOTH CAVE.

TOUR THROUGH KENTUCKY'S WONDERLAND.

Some Interesting Reminiscences of Bygone Days—The Weird Echoes from the Disappearing River—The Great Bottomless Pit.

(Special Letter.)
THE entrance to Mammoth Cave of Kentucky is reached by descending a picturesque path-way leading from the hotel down the hillside over jutting moss and fern-covered limestone cliffs into a beautiful glen extending from the top of the hill down to Green river, which is 194 feet below the mouth of the cave and about half a mile distant. If the weather is warm, as we near the entrance we step into a bracing, cool pure air, welling up from the cave and flowing down the glen beneath the stratum of lighter and warmer air. I have stood near the entrance and extended one hand into a temperature of 90 degrees, while the other hand was extended into a cool flowing river of air with a temperature of about 60 degrees. The air within the cave has a uniform temperature, summer and winter, of 54 degrees. The cave may be said to breathe twice a year—inhalation during the winter, and exhalation during the summer. This breathing of the cave, and the purity of the



ENTRANCE TO CAVE.
(From Inside.)

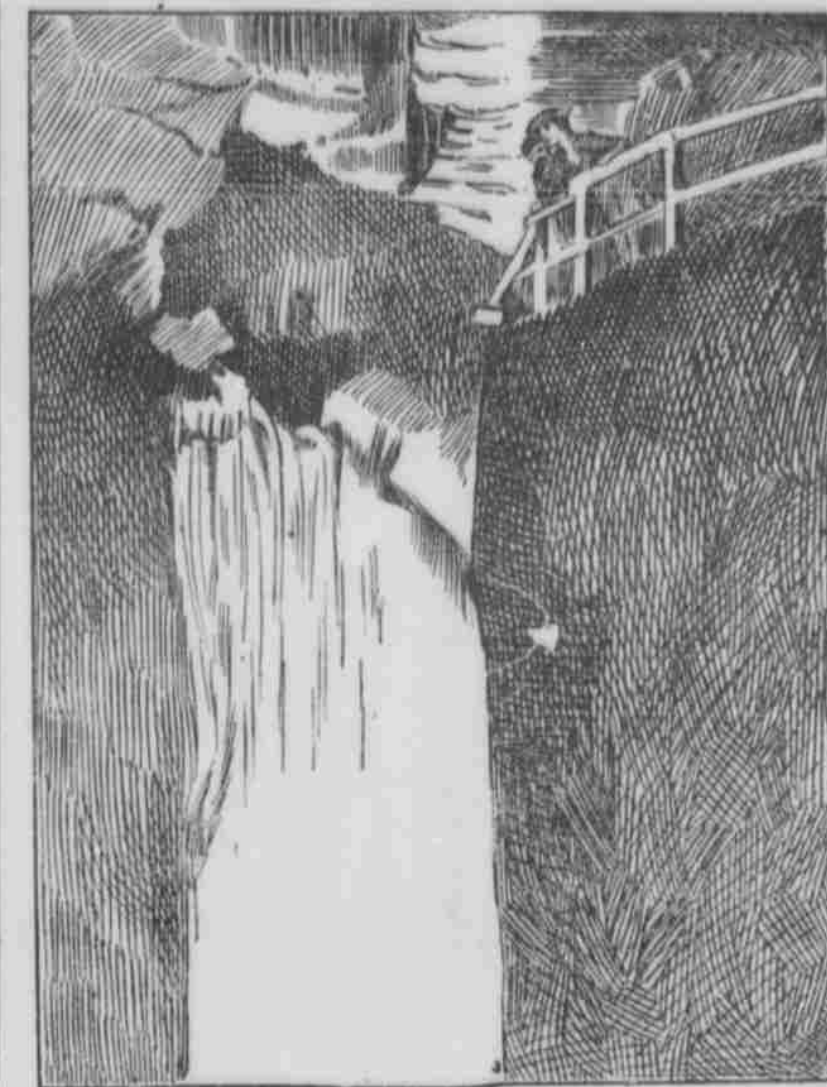
air and its freedom from germs, are among the most interesting problems to be studied. By what process the air in the cave becomes sterilized remains to be determined. But our faithful negro guide has counted the party, selected the requisite number of lamps, and given the word, and we follow him in single file down the rude stone steps into the vestibule of the cave. Here our lamps are lighted, and we enter this silent, mysterious, changeless abode of eternal night, where the heat of summer and the cold of winter, the storms and the thunder of the world, never penetrate. A few hundred yards, and we feel the sensation of emerging into expanding space. We catch only glimpses of white limestone projecting out of black shadows of the far-away walls and ceiling of an immense, almost circular room about 70 feet high, which our guide proclaims the Rotunda.

We note the peculiar musical effect of the human voice. Years ago it was my good fortune to hear a celebrated German musical society sing in this Rotunda. I went far away in one of the great avenues leading from here, blew out the light, and sat alone in the darkness, and listened while the grand anthems rolled and reverberated through the lofty corridors in majestic waves of melody. I could then appreciate the inestimable privilege of the few who heard Jenny Lind sing here, and who in the Star chamber heard a member of her party render on his violin the prayer from "Der Freischütz."

When the rotunda is illuminated we note the perfect clearness of the atmosphere, the freedom from dust particles

of any kind; and we soon learn that nowhere in the cave will even dust rise upon our shoes. We note also the exhilarating effect of the air upon the members of our party. It is believed that the air has become oxygenated by chemical process; certainly, from its purity and dryness, it enables one to undergo exercise for hours without a sense of fatigue. Here before us is evidence of the wonderful dryness of the air. The salt-peter vats erected in 1812, and the timbers which have remained in their present position since then, show no evidences of decay. In these vats the salt-peter was leached from the nitrous earth abounding in the upper and middle dry avenues, and used for the manufacture of gunpowder. The war of 1812 was fought, on the American side, with gunpowder made from salt-peter taken from caves, and Mammoth Cave supplied the greater part. It requires a day and a half to make the regulation journeys through the cave; one half a day to what is known as the short route, and an entire day to the long or river route. But that by no means exhausts the objects of interest, and one may spend days in visiting avenues and chambers and domes not included in the regular routes. A bare enumeration of the interesting places included in the regular route would fill a chapter, and will not be attempted here, attention being directed only to a few points of interest. We first traverse the main cave, a grand arcade extending from the rotunda about four miles to where fallen rocks have closed the avenue. This part of the cave has an average width of about 60 feet, and an average height of about 40 feet, but in places it widens into immense chambers, having heights of from 60 to 75 feet. The darkness adds to the appearance of magnitude of these grand avenues. We pass additional salt-peter vats, the church, where we see rude seats, an immense room under a beautiful arch, with a gallery running along one side, and where, we are informed, religious services are sometimes held; pass the Gothic galleries, and under the grand arch, when the guide asks you to keep silent and listen. You hear the regular ticking as of a great clock. It is caused by a single drop of water falling into a pool about every second. Some distance on we come upon two stone cottages built against one of the walls of the avenue. These are the remains of a number that were built in the cave in 1843, for the abode of consumptive patients. It was believed that the pure air of the cave would affect a cure, and fifteen consumptives took up their abode here, and remained for five months without going outside. It is said that when they did go out three died before they could reach the hotel. Something more than purity is required, sunlight. It is said that the salt-peter miners had remarkable health while working in the cave, and persons with weak lungs are certainly benefited by short walks in this atmosphere. I believe, in time, that these immense reservoirs of dry, pure, antiseptic air will be utilized for the cure of consumption and asthma, not by sending the patient into the cave, but by bringing the air into sunlight-dried elevated sandstone plateaus above the caves. Consumptives take long sea voyages and visit high altitudes to get the benefit of aseptic atmosphere; but they suffer from variations of temperature, from storms, and at high altitudes exercise cannot be taken, while the cave air predisposes one to take exercise with little fatigue. I have known delicate women to walk for nine hours in the cave, clambering up steep ascents and over rocks, and come out of the cave feeling no sense of fatigue until they reached the warm, impure air outside, charged with odors of decayed vegetation, when they would almost faint, and would require assistance in ascending the path to the hotel. I once went with a friend and guide to Roaring river and several other remote places, which required remaining in the cave over night. It was night when we came out, and we had become so sensitive by our stay of thirty-six hours in the pure air of the cave that we were almost overcome by the suffocating mephitic odors and oppressiveness of the outer air. We now enter an immense hall about seventy feet wide, but how high and long we cannot tell; far above the towering cliffs on each side is blackness, and ahead of us the receding walls vanish in utter darkness. By direction of the guide, we seat ourselves on a

log and lean back against the right-hand wall. He removes our lamps so that they will not shine in our eyes, and placing them so the light will be thrown upward, he bids us look aloft. Exclamations of wonder break forth. We seem to be looking out from the bottom of a deep canon into black mid-night, heaven studded with innumerable stars. The longer we gaze, the more perfect does the illusion become. The ceiling of the star chamber is flat, and is coated with black oxide of manganese. This is pierced with sparkling crystals of gypsum. The blackness is so intense, and the ceiling so high, that we seem to look up into unfathomable space, in which the tiny stars float. Star chamber is the end of the short route, and visitors retrace their steps from here; but there are some miles beyond, which we will visit in order to see the largest underground dome in the world. This is called Chief city. This stupendous dome is 500 feet across in one direction, and 250 feet in another, and the height is estimated at from 90 to 125 feet. Over this great area extends a solid arch of limestone. The awful sublimity of this place can be appreciated better from the illustration than from any attempt at description. The Indians procured flint from the cave. Flint dome, which is



THE BOTTOMLESS PIT.

rarely visited, has hands and nodules of flint projecting from the circular walls, and the evidences are abundant that the Indians gathered flint from here. The moist flint from the cave would flake easier than the dry flint outside, and for that reason must have been in great demand by these manufacturers of flint implements. Before crossing the river for the long route we visit some of the wonderful domes. These are in the portion of the cave nearest Green river, but this would not be known by the visitor after wandering through avenues turning in all directions. The most interesting are Florin's dome, Bottomless pit, and Mammoth dome. The Bottomless pit is a fearful pit to look down into from the bridge spanning one of its bays. I once went with a companion through a tortuous passage to the bottom of this pit, and while there heard the shouting and laughter of an approaching party overhead. Extinguishing our lights, we waited until they had looked down, trying to penetrate the unfathomable darkness of the deep pit, we gave an unearthly, sepulchral wail. Exclamations of fear and horror resounded through the cave from the frightened crowd upon the bridge; but the guide, knowing that we had gone into the cave in advance of his party, quieted their fears by the assurance that the sounds did not come from evil spirits of the vasty deep. For a long time Echo valley barred the way to the extensive system of avenues beyond. The celebrated colored guide, Stephen Bishop, was the first to cross it. Now avenues have been discovered and opened up, so that it is now possible to reach the trans-river portions of the cave without crossing the river. But these are used only when the river is too high to cross, as a fall on this underground water is one of the most delightful experiences of the cave. Flat-bottomed boats, each with a capacity to carry about twenty persons, have been provided. Our lamps are arranged at each end; we take seats along the sides of the boats, which are pushed off; and we silently float out under the dark archway into an unknown world such as we have never before conceived of. The river is about twenty feet deep, of the purest water, so clear that pebbles can be seen on the bottom. In places it widens out to 200 feet, and branches reach away into darkness on each side. It is a fall of about three-fourths of a mile to reach the farther shore, and it is an experience ever to be remembered. Our guide asks us to keep silent; then, lifting the heavy, broad paddle with which he has been propelling our boat, he strikes with all his strength the flat side on the water. Instantly the subterranean thunders of the underworld are let loose. From all directions come rolling waves of sound, multi-

plied a thousandfold, receding, and again returning with increasing volume, lingering for many seconds, and finally dying away in sweet, far-away melodies. Then, when the last faint sounds have ceased, he agitates the water with his paddle, and asks us to listen. The receding waves, reaching cavities in the sides of the overhanging arches, break the stillness with sweet, bell-like sounds. Some notes, striking the keynote of the rocks, multiply the musical melody; some notes are soft and low; others are loud, almost with an alarm-bell clangor. This music, such as cannot be heard elsewhere on earth, gradually dies away in receding echoes, coming over the waters from far-away hidden chambers. The echo is not such as we hear above ground or in buildings, but a succession of receding waves of sound, lasting for about thirty seconds, and adding an indescribable melody to all sounds, whether from shouting or from instrumental or vocal music.

ST. KEYNE'S WELL.
The well of St. Keyne is perhaps the best known of all the many holy wells with which Cornwall is supplied. It is situated beside a road in the parish of Duloe, midway between Lisheard and



THE WELL OF ST. KEYNE.

rarely visited, has hands and nodules of flint projecting from the circular walls, and the evidences are abundant that the Indians gathered flint from here. The moist flint from the cave would flake easier than the dry flint outside, and for that reason must have been in great demand by these manufacturers of flint implements. Before crossing the river for the long route we visit some of the wonderful domes. These are in the portion of the cave nearest Green river, but this would not be known by the visitor after wandering through avenues turning in all directions. The most interesting are Florin's dome, Bottomless pit, and Mammoth dome. The Bottomless pit is a fearful pit to look down into from the bridge spanning one of its bays. I once went with a companion through a tortuous passage to the bottom of this pit, and while there heard the shouting and laughter of an approaching party overhead. Extinguishing our lights, we waited until they had looked down, trying to penetrate the unfathomable darkness of the deep pit, we gave an unearthly, sepulchral wail. Exclamations of fear and horror resounded through the cave from the frightened crowd upon the bridge; but the guide, knowing that we had gone into the cave in advance of his party, quieted their fears by the assurance that the sounds did not come from evil spirits of the vasty deep. For a long time Echo valley barred the way to the extensive system of avenues beyond. The celebrated colored guide, Stephen Bishop, was the first to cross it. Now avenues have been discovered and opened up, so that it is now possible to reach the trans-river portions of the cave without crossing the river. But these are used only when the river is too high to cross, as a fall on this underground water is one of the most delightful experiences of the cave. Flat-bottomed boats, each with a capacity to carry about twenty persons, have been provided. Our lamps are arranged at each end; we take seats along the sides of the boats, which are pushed off; and we silently float out under the dark archway into an unknown world such as we have never before conceived of. The river is about twenty feet deep, of the purest water, so clear that pebbles can be seen on the bottom. In places it widens out to 200 feet, and branches reach away into darkness on each side. It is a fall of about three-fourths of a mile to reach the farther shore, and it is an experience ever to be remembered. Our guide asks us to keep silent; then, lifting the heavy, broad paddle with which he has been propelling our boat, he strikes with all his strength the flat side on the water. Instantly the subterranean thunders of the underworld are let loose. From all directions come rolling waves of sound, multi-



THE WELL OF ST. KEYNE.

of whom Southey tells, however, was not sharp enough: "I hastened as soon as the wedding was over. And left my good wife in the porch. But, I faith, she had been far wiser than I. For she took a bottle to church."

One Way of Preserving Roads.
To protect and preserve the highways by withdrawing them from public use at times when they are likely to be injured by heavy travel is certainly a unique method of providing for the public welfare, but this is what the Kentucky statutes say: "Any corporation, company or individual who may by unusual use of a road, materially damage the same, shall repair all damages caused by the use of such road or roads. The supervisor or overseer of roads shall at any time when necessary notify said corporations, companies or individuals of their duty as provided in this section; and should the said parties so notified fail in a reasonable length of time, to be filed in the notice, to make such repairs, such parties shall be deemed guilty of obstructing the public roads and shall be subject to a fine of not exceeding \$100, to be applied to road purposes."

Womanlike.
Nell—"Which is your favorite pot among animals?" Belle (enthusiastically)—"Mae."—Tit-Bits.

OUT FOR POLAR FAME.

FRENCH CANADIAN IN QUEST OF THE POLE.

He Has a Theory That the North Basin Is a Frozen Sea—Will Use a Rubber Raft—To Be Aided by the Ice Fin.



(Special Letter.)

APT. J. EDGAR BERNIER of Quebec is arranging to head an expedition of discovery into the polar regions. His proposition is to charter a good sealer with steam power and proceed to the entrance of the Lena river, Siberia, and in about latitude 73 degrees north and between 120 degrees to 140 degrees longitude east. Abandoning the vessel, Capt. Bernier will land on the main pack with two years and a half of provisions and one year's provisions for the reindeer, and one year and a half for the dogs. His equipment would consist of one boat in compartments built of aluminum and wood, with all the necessary appliances for wind and hand power. In addition, he would be provided with thirty sledges of various kinds and modelled to carry about fifteen hundred to two thousand pounds each, made of aluminum and some of wood, to fit in a rubber raft to make the bottom part of the raft. The equipment would also include six skeleton "kayacks," ready for use, with canvas covers detached, but ready to be adjusted in an emergency. It is designed that each kayak shall carry two men and six months' provisions, a total weight of 1,500 pounds in each.

In addition, he has provided for 120 tame and unhorned reindeer, to be utilized in carrying the provisions and material towards the north as fast as possible. He proposes to feed them with about four hundred pounds of moss per day, and he would kill them one by one to feed the dogs. Before going into winter quarters he would slaughter the remainder and use the food for the men and dogs. These latter would comprise fifty or sixty Siberian hounds. The rubber raft would be twenty-five feet long, six feet wide, and four feet deep, with a draught of two feet, and capable of carrying eighteen thousand pounds. Apart from locomotion he will be aided by the drift of the ice, which carried the Fram upwards of one thousand miles in a direction almost north 30 west. He has a theory that the polar basin is a frozen ocean. With every equipment that human ingenuity can devise, he proposes to proceed leisurely at the rate of about four miles a day. He expects to return with his mission accomplished within eighteen months, but as a precautionary measure will provide himself with provisions for two and one-half years. On the return trip he would head for Spitzbergen or Franz Joseph Land, preferably the latter in order to explore Peterman's Land seen at a long distance many years ago by Payer, but which has never been visited.



CAPT. BERNIER.

Completed within eighteen months, but as a precautionary measure will provide himself with provisions for two and one-half years. On the return trip he would head for Spitzbergen or Franz Joseph Land, preferably the latter in order to explore Peterman's Land seen at a long distance many years ago by Payer, but which has never been visited.

Faze—Faze—Faze.

When speaking colloquially, if we want to indicate that one has been caught unawares, startled, had his breath taken away, flustered, put in a state of funk, or mentally disturbed and perturbed in any degree, we say "he is fazed," or "it fazed him." The origin and spelling of this word annoyed me for a long time. I have seen it spelled in many ways, as, for instance, faze, faze, phase, vease, faze, faze, faze. Take your choice. The pronunciation is invariably faze. "Why, you couldn't faze him," said of a man, means that he can neither be held nor driven. Faze is local United States. Other forms of the word were used in the fifteenth century, and are of distinguished origin.—New York Press.

Great Pianist's Sarcasm.

Some years ago Edward E. Rice was presented to Von Bulow at a club dinner in Boston. It was just about the time that all Europe was talking of Mme. Von Bulow's flirtation with Verdi, who had taught the pianist almost all he ever knew about music. "I want you to become acquainted with Mr. Rice," said a friend; "he doesn't know anything about music, but he has composed several operas." "Delighted, I am sure," murmured the great pianist, with a sarcastic smile; "he reminds me of a man I knew at home; his name is Verdi."

The cylindrical bales of cotton now shipped from the United States to Liverpool are pronounced a great improvement upon the first specimens, and also upon the old bales.

Well and Strong

Nervous Spells and That Tired Feeling Cured by Hood's.

"My health was very poor. I had nervous spells and did not sleep well at night. When I arose in the morning I was tired and exhausted and did not feel any more rested than when I retired at night. I knew I needed a medicine to build me up, and I concluded to take Hood's Sarsaparilla. After the first bottle had been taken I felt so much better that I procured five more. I am now taking the last one, and I have not felt as well and strong for years." H. P. JONES, 233 E. Mulberry St., Kokomo, Indiana.

Hood's Sarsaparilla
is America's Greatest Medicine. Sold by all druggists. \$1; six for \$5. Get only Hood's.

Hood's Pills are the only pills to take with Hood's Sarsaparilla.

It is a long dress train that has no curtailing.

My doctor said I would die, but Pin's Cure for Consumption cured me.—Amos Kainer, Cherry Valley, Ill., Nov. 20, '90.

"A soft answer turneth away wrath," and soft soap dirts.

CONGRESSMAN MEEKISON.

Has Faith That Pe-ru-na Will Eradicate Catarrh.

It is to congress that our nation must look for all power. Every volition of the government must originate in this body of representatives. The president simply executes the will of congress. Congress is supposed to carry out the will of the people. Congress is the brain of the nation. The people are the blood of the nation. Good blood makes good brain. Good brain makes success, contentment and happiness, whether of a nation or of an individual.



HON. DAVID MEEKISON OF OHIO.

Individual. A man with poor blood cannot succeed. His nerves are weak, his brain fogged and his will paralyzed. Good blood is simply well digested food. A stomach with the slightest catarrhal impairment cannot properly digest food. Pe-ru-na quickly procures perfect digestion. Pe-ru-na cures catarrh whether of the head, stomach, throat, lungs or kidneys. A man perfectly free from catarrh is nearly always a well man.

Washington, D. C., April, 1898.

The Pe-ru-na Drug Mfg Company, Columbus, Ohio.

Gentlemen—I have used several bottles of Pe-ru-na and feel greatly benefited thereby from my catarrh of the head and feel encouraged to believe that the continued use will fully eradicate a disease of thirty years' standing. Yours respectfully,

D. Meekison.

Address The Pe-ru-na Drug Manufacturing Company, Columbus, Ohio, for a free catarrh book.

Oh, the Pain of Rheumatism!

Rheumatism often causes the most intense suffering. Many have for years vainly sought relief from this disabling disease, and are to-day worse off than ever. Rheumatism is a blood disease, and Swift's Specific is the only cure, because it is the only remedy which can reach such deep-seated diseases.

A few years ago I was taken with inflammatory Rheumatism, which became so intense that I was for weeks unable to walk. I tried several prominent physicians and took their treatment faithfully, but was unable to get the slightest relief. In fact, my condition seemed to grow worse, the disease spread over my entire body, and from November to March I suffered agony. I tried many patent medicines, but none relieved me. Upon the advice of a friend I decided to try



Swift's Specific. Before allowing me to take it, however, my physician, who was a chemist, analyzed the remedy, and pronounced it free of poison or mercury. I felt so much better after taking two bottles that I continued the remedy, and in two months I was cured completely. The cure was permanent, for I have never since had a touch of Rheumatism, though many times exposed to damp and cold weather.

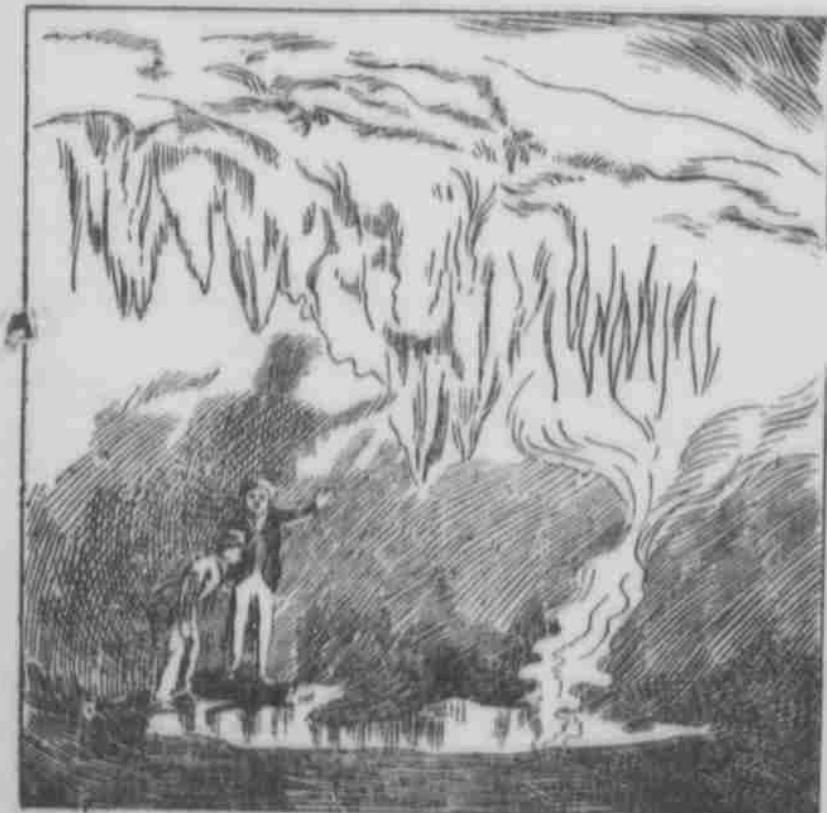
2711 Fowles Avenue, Philadelphia.

Don't suffer longer with Rheumatism. Throw aside your oils and liniments, as they can not reach your trouble. Don't experiment with doctors—their potash and mercury will add to your disability and completely destroy your digestion.

S.S.S. For Blood
will cure perfectly and permanently. It is guaranteed purely vegetable, and contains no potash, mercury, or other mineral. Books mailed free by Swift's Specific Co., Atlanta, Ga.

HE PAYS THE FRAYT
BEST SCALES. LEAST MONEY. JONES OF BINGHAMTON N. Y.

ROOFING
The best Red Bone Roasting for 10¢ per lb. 75¢, 50¢ and 25¢ per lb. Subscriptions for Treatise. Accepted for Postage at Special Rate of 10¢ per lb. The Red Bone Roasting Co., Camden, N.J.



ORPHAN HALL.